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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,833	04/16/2004	Douglas Brisbin	NSC1-H1400 [P05941]	9453

7590 02/10/2006

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EXAMINER	
DICKEY, THOMAS L	

ART UNIT	PAPER NUMBER
2826	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,833	BRISBIN ET AL.	
	Examiner	Art Unit	
	Thomas L. Dickey	2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2006*.

2a)☒ This action is **FINAL**. 2b ☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 January 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 01/11/2006 has been entered.

Drawings

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 01/11/2006 have been approved. Applicant's statement that figure 6 is not completely old is correct, and therefore Applicant is within the rules in refusing to label figure 6 "PRIOR ART." However, according to the specification at page 11 lines 25-27, figure 6 shows the "old" breakdown point "B," in contrast to figure 7 which shows the inventive breakdown point "C," in an otherwise drawing. For this reason the Examiner believes it would be informative to label figure 6 as old.

3. Applicant's remarks filed 1/11/06 state, "the structure shown in Fig. 1 of the application ... [has] body 4 ... P-type lightly doped drain implant 6 and P-type deep drain implant 7." Remarks, page 6, paragraph 3. In the full context of Applicant's specification the Examiner is of the opinion that Applicant's remarks properly identify parts 4,6, and 7. In this case figure 1 (and probably also figures 6 and 7) should be re-drawn to remove the label "BODY" from part 7, inasmuch as part 7 is the deep drain implant, not the body.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by KWON ET AL. (5,306,652).

Kwon et al. discloses a high voltage power transistor PMOS (note that although Kwon's figure shows an NMOS Kwon et al. explicitly disclose, column 4 lines 53-54, both PMOS and NMOS devices) device having a drain junction breakdown point and a maximum impact ionization point, and including a gate 32; a body 12; and an extended drain region 14-24-36 formed (note column 2 lines 61-63) in the body 12, wherein the extended drain region 14-24-36 includes a drain 36, a deep drain implant 14, and a lightly doped drain implant 24 between part of the deep drain implant 14 and the gate 32, at least a portion of the lightly doped drain implant 24 is located between the drain 36 and the gate 32, and at least a portion of the deep drain implant 14 is located below the drain, 36 wherein (note column 4 lines 19-21) the drain junction breakdown point is located within at least one of the body 12 and the extended drain region 14-24-36. Note figure 4, column 2 lines 43,44, and 61-63, and column 4 lines 19-21 and 53-54.

The applicant's claims 1-10 do not distinguish over the Kwon et al. reference regardless of the functions allegedly performed by the claimed device, because only the device per se is relevant, not the recited functions of reducing any drain breakdown voltage walk-in exhibited by the device below a predetermined value (recited in claims 1,6,9, and 10), or causing the device to exhibit no significant drain breakdown voltage walk-in (recited in claims 2,3, and 5, with "no significant drain breakdown voltage walk-in" limited to 2 volts absolute magnitude in claim 3).

Note that functional language in a device claim is directed to the device per se, no matter which of the device's functions is referred to in the claim. See *In re Ludtke and Sloan*, 169 USPQ 563 at 567, and *In re Swinehart* 169 USPQ 226, both of which make it clear that it is the patentability of the device per se which must be determined in a "functional language" claim and not the patentability of the function, and that an old or obvious device alleged to perform a new function is not patentable as a device, whether claimed in "functional language" claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw makes clear. See also In re Schreiber, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997), for a discussion of the roles of examiner and applicant in determining when and how functional limitations distinguish a claim from prior art disclosing the same structure.

Furthermore, the applicant's claims 6-8 do not distinguish over the Kwon et al. reference regardless of the processes used to form the device, because only the final product is relevant, not the recited process of manufacturing the device in accordance

with a BiCMOS process, or the recited process of controlling an implant dose employed to produce the lightly doped drain implant 24 so that the implanting dose is much less than 2.23 x 10^{12} ions/ cm^2, and at least substantially equal to 1.15 x 10^{12} ions/cm^2.

Note that a "product by process" claim is directed to the product per se, no matter how actually made. In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re Marosi et al., 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw makes clear. See also MPEP 706.03(e).

Allowable Subject Matter

5. Claims 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Note the contrast between claim 32, claiming the drain breakdown point to be under the lightly doped drain implant (corresponding in Kwon et al. to part 24) and Kwon et al's disclosing said drain breakdown point to be to be under Kwon et al.'s drain 36.

Response to Arguments

6. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L Dickey whose telephone number is 571-272-1913. The examiner can normally be reached on Monday-Thursday 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas L. Dickey
Patent Examiner
Art Unit 2826
02/06